

IN THE CLAIMS:

1. (Cancelled).

2. (Currently Amended): A ~~compound~~ method in accordance with Claim 1 ~~8~~ wherein R¹ is methyl, and R² is pentyl or hexyl.

3. (Currently Amended): A ~~compound~~ method in accordance with Claim 1 ~~8~~ wherein the

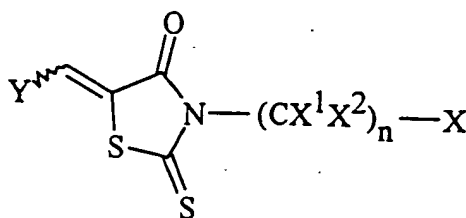
$$\begin{array}{c} \text{R}^1 \\ \backslash \\ \text{N-} \\ / \\ \text{R}^2 \end{array}$$
 group is located at the para position on the phenyl ring.

4. – 7 (Cancelled).

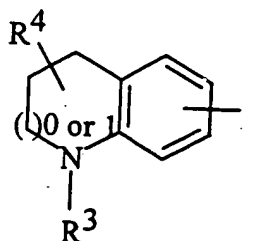
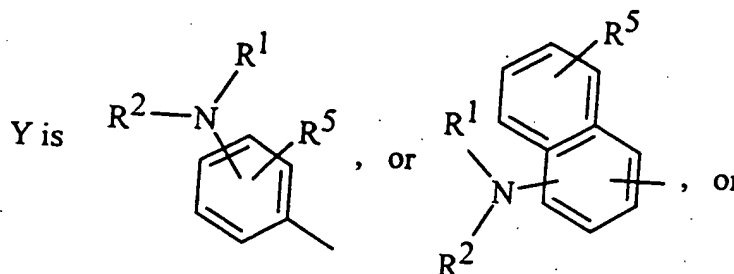
8. (Currently Amended): A method of imaging amyloid deposits, the method comprising the steps of :

a. introducing into a patient a detectable quantity of a labeled compound of Claim 1

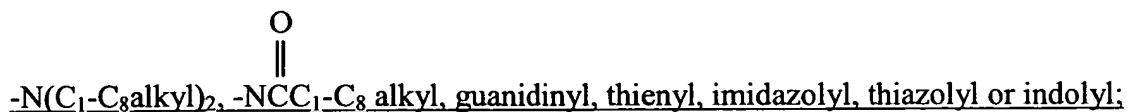
having the Formula I:



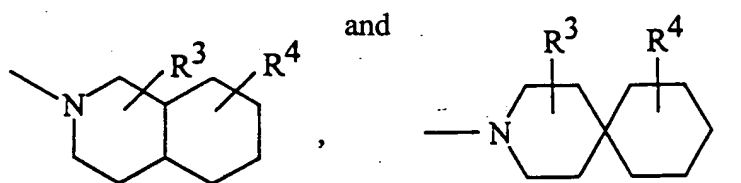
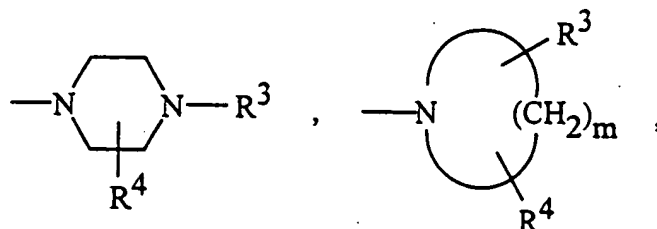
or a pharmaceutically acceptable salts thereof, wherein:



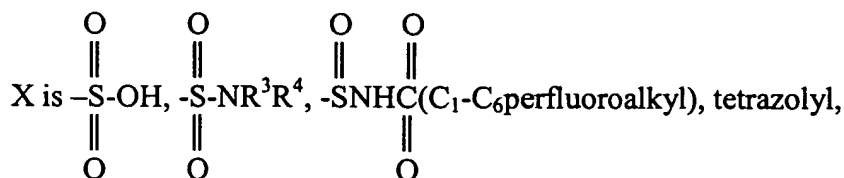
each n is independently 1 to 3 inclusive; X¹ and X² are independently hydrogen or C₁-C₈ alkyl, or -(CH₂)_y-Z; y is 0 to 4 inclusive; Z is hydrogen, C₁-C₈ alkyl, C₃-C₈ perfluoroalkyl, C₂-C₈ alkenyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl, -OH, -OC₁-C₈ alkyl, -SC₁-C₈ alkyl, -SO₃H, -CO₂H, -CO₂C₁-C₈ alkyl,

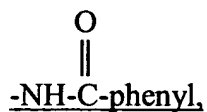
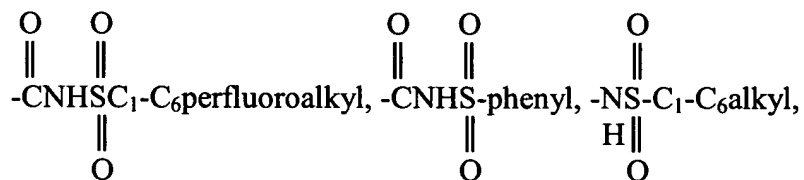
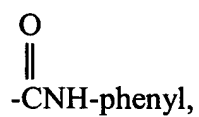
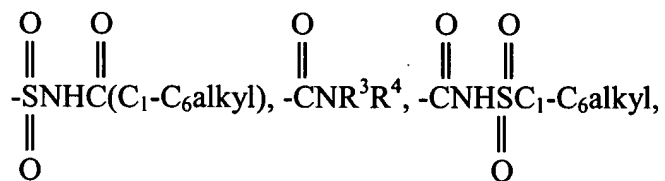
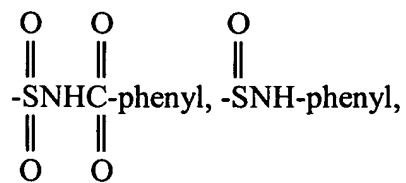


R¹ and R² are independently C₁-C₈alkyl or -(CH₂)_n-C₃-C₆cycloalkyl, -(CH₂)_n-phenyl, or R¹ and R² taken together with the nitrogen atom to which they are attached form a cyclic structure selected from the group consisting of



where R³ and R⁴ independently are hydrogen, C₁-C₈ alkyl, -(CH₂)_n-phenyl, or -(CH₂)_n cycloalkyl; R⁵ is hydrogen, C₁-C₈ alkyl, halogen, or -CF₃; each m is 2 to 8 inclusive;





$\begin{array}{c} \text{O} \\ \parallel \\ \text{-NHCC}_1\text{-C}_6\text{perfluoroalkyl, or -NHCC}_1\text{-C}_6\text{alkyl;} \end{array}$ wherein phenyl includes substituted phenyl;

b. allowing sufficient time for the labeled compound to become associated with amyloid deposits; and

c. detecting the labeled compound associated with the amyloid deposits.

9. (Original): The method of Claim 8 wherein the patient has or is suspected to have Alzheimer's disease.

10. (Original): The method of Claim 8 wherein the labeled compound is a radiolabeled compound.

11. (Currently Amended): The method of Claim 8 ~~herein~~ wherein the labeled compound is detected using MRI.